



# Wesolok D

more dispersible large-particle alumina for ceramic fiber bonding

## Why Wesolok D?

- **Withstands higher temperatures** - High purity alumina provides for low reactivity and can be used to replace colloidal silica where greater refractoriness at use temperatures is required.
- **No cristobalite** – Completely cristobalite free, eliminating a common source of thermal shrinkage problems and health-related concerns.
- **Flocs with cationic starch** – Has a moderate cationic charge which works well with all starches, and especially well with a cationic starch like **Westar+**.

## Typical Properties

Appearance	White powder
pH (20% in water)	3 - 5
Loose Density	40 – 60 lbs/ft <sup>3</sup>
Al <sub>2</sub> O <sub>3</sub> , wt. %	80
Na, ppm	20
Surface Area, m <sup>2</sup> /g	140*
Crystallite size, nm	18
Bulk particle size, μm	50
Concentration limit, sol	30 wt%**

\* After Activation (3 hours, 550°C)

\*\* Higher concentrations will gel

## Storage and Handling

**Wesolok D** must be stored dry and protected from moisture. Under these conditions **Wesolok D** has an infinite shelf life.

## How to Use Wesolok D for fiber bonding

**Wesolok D** should be flocced with cationic corn starch, like **Westar+**. Start with a balanced ratio of 6% starch and 6% alumina based on weight of fiber, and adjust as needed.

### Typical Formulation:

		<u>with filler</u>
Water, Gallons	50	50
Refractory Fiber, lbs	8	8
Alumina filler, lbs	0	3
Westar+ Starch, lbs.	0.5	0.7
Wesolok D, lbs	0.6	0.8

Follow above order adding **Westar+** dry and mix for ten minutes to disperse and swell starch before adding **Wesolok D**. Mix an additional 15 minutes to complete floccing before forming. Dry at 250°F (120°C). For burning out starch, 750°F (400°C) is suggested as this will also remove the water of hydration from the alumina binder to set it permanently.

### Packaging, and Safety:

**Wesolok D** is available in fiber drums, 400 lbs net, loose. Cartons: 50 lbs. net.

**Wesolok D** is non-toxic. Do not breathe dusts. Dispersions are mildly acidic. Protect eyes from splashes. See SDS for a complete safety discussion.

For a price quote and valuable information on how we can help you improve your vacuum formed products call

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